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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/734,646	12/13/2000	Wolfgang Beilfuss	S 5225 - OP/MM	4803

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EXAMINER

CHOI, FRANK I

ART UNIT	PAPER NUMBER
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1616

DATE MAILED: 12/03/2001

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/734,646

Applicant(s)

BEILFUSS ET AL.

Examiner

Frank I Choi

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– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other: ____

DETAILED ACTION

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-14, 19-24 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-9, 12-28 of copending Application No. 09/861,586. Although the conflicting claims are not identical, they are not patentably distinct from each other because both applications claim composition comprising biocidally effective mixtures of N-formal compounds, isothiazolone compounds, stabilizers, solvents, etc. and similar methods of using the same by adding the composition to an industrial product.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Examiner notes that there are two additional co-pending applications, 09/734646 and 09/424447, which were not available for Examiner to review. As such, Examiner requests that Applicant submit copies of the Specification of each, including claims, as currently amended, so that Examiner may determine if a double patenting rejection is necessary.

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Claim Objections

Claims 1-22, 24-28 objected to because of the following informalities: Independent claims should begin with an "A". Dependent claims should begin with a "The" except where the claim is the first claim of category of invention that is dependent on a different category, i.e. method claim which is dependent on a composition claim. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. Since there are too many instances of above to reasonably set forth both the broad and narrow range/limitations herein, Examiner will indicate the claim and narrow range or limitation:

Claim 2, "preferably alkanolamine".

Claim 4, "preferably 10 to 95% . . . 40 to 90% by weight"

Claim 7, "preferably 2 to 40% . . . 5 to 10% by weight".

Claim 9, "in particular the sodium and zinc salt".

Claim 10, "preferably 2 to 20% . . . 5 to 10% by weight".

Claim 14, "preferably less than 35% . . . 25% by weight".

Claim 18, "e.g. benzotriazole and methylbenzotriazole . . . -methylanine" and "e.g. 5(or 6)-carboxy-4-hexylcyclohex-2-en-1-octanoic acid".

Claim 19, "in particular O formals . . . auxiliaries".

Claim 23, "in particular crop-protection . . . preservatives".

Claim 24, "preferably . . . 0.10% by weight".

Claim 25, "in particular temporally . . . another".

Claim 18 is indefinite as it is uncertain if all the compounds following "triazole" are the derivatives or just "benzotriazole and methylbenzotriazole" and the use of "5(or 6)" is confusing as it is uncertain how a compound can be a 5-carboxy or a 6-carboxy.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,2, 5, 6, 19, 20, 22, 23, 25 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Voo et al. (U.S. Pat. 5,464,850).

Voo et al. expressly discloses a composition and method preparing a product comprising Kathon CG/II or Kathon CG, and Dantogard, or a product containing Kathon CG, Dantogard and Kathon LM, or a product containing Kathon CG/II, Dantogard and Proxel GXL falling within the scope of applicant's claims (Column 5, lines 20-68, Columns 6-8, Column 9, lines 1-14).

Dantogard is an N-formyl, Kathon CG and Kathon CG/II and Proxel GXL are isothiazolinones, and Kathon CG and Kathon CG/II contain stabilizers.

Alternatively, at the very least the claimed invention is rendered obvious within the meaning of 35 USC 103, because the prior art discloses products and uses that contain the same exact ingredients/components as that of the claimed invention. See *In re May*, 197 USPQ 601, 607 (CCPA 1978). See also *Ex parte Novitski*, 26 USPQ2d 1389, 1390-91 (Bd Pat. App. & Inter. 1993).

Claims 1-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lutz et al. (U.S. Pat. 6,114,366) in view of Reeve (U.S. Pat. 5,210,094), DE 2337755 (Abstract), DE 19534532 (Abstract), Raad et al. (U.S. Pat. 6,267,979), Grier et al. (U.S. Pat. 4,119,779) and Rothenburger et al. (U.S. Pat. 6,121,302).

Lutz et al. teaches a synergistic preservative system comprising an N-formaldehyde donor and 3-isothiazolones and that the two can be added to products together or separately (Column 3, lines 22-68, Column 4, lines 1-28).

Reeve teaches that isothiazolones are highly effective microbiocides but that they can be inactivated by components of industrial products as well as over long term storage, as such, isothiazolones are combined with stabilizers, including formaldehyde donors, orthoesters, epoxides and carbonyl compounds (Column 1, Column 2, lines 1-15). It is taught that sulphur containing stabilizers such as mercaptopyridine-N-oxides protect isothiazolones against chemical degradation and also act as microbiocides and that the composition can additionally contain solvents such as glycols alcohols and the like (Column 3, Column 4, lines 1-30).

DE 2337755 teach that N-formals or O-formals act synergistically with mercapto pyridine as germicides (Abstract).

DE 19534532 teach that solubilizers such as phenoxyethanol, phenoxypropanols, phenoxybutanols, dipropylene glycol, etc. improve the stabilizing effect of stabilizers on isothiazolones (Abstract).

Raad et al. teach that biofouling causes problems in circulating liquid systems, including increase in corrosion (Column 1). It is taught that chelators, including EDTA and the like, assist in disrupting and/or dissolving glycocalyx, thereby improving that activity of antimicrobial

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compounds such as formaldehyde and isothiazolones, bind metal ions used by bacteria and are growth inhibitory against species of air and water born microorganisms (Columns 9-13).

Grier et al. teaches that corrosion inhibitors such as inorganic salts of 2-mercaptobenzothiazole, alkenylsuccinic acids and of stearic acid, butyl esters of lipid-soluble carboxylic acids are preferably added in combination with formaldehyde condensation products and that methyl alcohol and glycols act as freezing point depressants (Column 5, Column 6, lines 8-17).

Rothenburger et al. taught that stabilized formulations of isothiazolone retain their stability at high temperatures encountered during manufacturing or in warehouse environments (Column 2, lines 15-30).

The difference between the prior art and the claimed invention is that the prior art does not expressly disclose the combination of a bactericidal N-formal, fungicide and stabilizer. However, the prior art amply suggests the same as the combination of N-formals with other biocidal compounds and the use of stabilizers are well known in the art. As such, it would have been well within the skill of and one of ordinary skill in the art would have been motivated to combine N-formals with other biocides, such as isothiazolones and O-formals, stabilizers, such as 2-mercaptopyridine N-oxides, solvents, such as glycols and alcohols, complexing agents, such as EDTA and the like, with the expectation that the composition would exhibit increased microbiocidal efficacy, would be suitable in a broad range of uses and environmental conditions, that the components could be added together or separately and that components could be added under conditions of high temperature.

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Therefore, the claimed invention, as a whole, would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, because every element of the invention has been collectively taught by the combined teachings of the references.

Conclusion


A facsimile center has been established in Technology Center 1600. The hours of operation are Monday through Friday, 8:45 AM to 4:45 PM. The telecopier numbers for accessing the facsimile machines are (703) 308-4556 or (703) 305-3592.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frank Choi whose telephone number is (703) 308-0067. Examiner maintains a flexible schedule. However, Examiner may generally be reached Monday-Friday, 8:00 am – 5:30 pm (EST), except the first Friday of the each biweek which is Examiner's normally scheduled day off.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's Supervisor, Mr. José Dees, can be reached on (703) 308-4628. Additionally, Technology Center 1600's Receptionist and Customer Service can be reached at (703) 308-1235 and (703) 308-0198, respectively.

FIC

December 3, 2001


JOHN PAK
PRIMARY EXAMINER
GROUP 1600

